

strict disciplinarians of aseptic surgery under this rigid rule: "An aseptic suture, aseptically applied, in an aseptic wound."

He claims that an aseptic wound should be entirely closed by buried animal sutures, the stitches taken from side to side, lightly through the deeper layer of the skin, and covered by iodoform collodion as a germ-proof dressing.

Drainage in all non-infected operative wounds is not only unnecessary but detrimental, and should not be used.

He clearly shows that he was the first, not only to use aseptically buried animal sutures, but that he published his experiments five years before Werth in Germany, to whom the credit in Europe has been generally given.—*Med. Record*, March 8, 1890.

#### NERVOUS AND VASCULAR SYSTEMS.

I. **Traumatic Fistula of the Spinal Cord. Cure.** By Dr. VORSTER (Berlin). The above interesting case occurred in the service of Prof. Rose. The patient, a strongly built locksmith, was stabbed in a brawl. The knife entered to the left of the spinal column, 2 cm. from the spinous process of the second dorsal vertebra, and passed between the laminæ of the first and second dorsal spines. The length of the wound was 5 cm. There was immediate motor and sensory paralysis of both extremities; the anæsthesia extended in front upward as far as the nipple; behind as far as the scapula. The left side was more profoundly affected, there being also analgesia on this side; passive movements possible in both extremities, but attended with great pain in the right leg. There was pain in the back upon movement. Liquor cerebro-spinalis at first did not escape, but subsequently this occurred to such a marked degree as to saturate the dressings and necessitate their removal. The wound was not sutured, but after thorough disinfection covered with antiseptic dressings. The patient made a most complete recovery, being finally enabled to walk about without the aid of crutches. The spinal wound healed after a tedious and protracted illness of the patient, the details of which are given in the original article, the whole picture being that of paraplegia of the lower extremities, followed by symptoms of Brown-Sequard's

spinal paralysis, lasting for 10 months. There was at first a severe hæmorrhage from the wound, and the author advises against suture of such wounds of the spinal cord, and points out the possible cure of such cases by continuous dorsal position of the patient in bed.—*Deutsch. Zeitschrift. f. Chir.*, Bd. 29, heft 5 and 6.

HENRY KOPLIK (New York).

**II. Nerve-Suturing in the Axilla.** By DR. E. EIZOLD (Dorpat). Six cases are communicated from the Dorpat clinic of wound of the large nerve trunks in the axilla, treated by suture. All the cases occurred in students while engaged in dueling with swords, and all were upon the right side. The vessels were first carefully ligatured and suture of the divided nerves followed. The material used for the suturing was sublimated silk. One was treated by means of the direct suture; the balance by the para-neurotic suture. The healing processes pursued an uninterrupted course in 3 cases; in the others but slight disturbances occurred. The final result, however, was in the highest degree an unsatisfactory one. The traumatic paralysis, particularly that of the hand, after periods varying from five months to six years, were found to be but very slightly improved. In the only case in which decided improvement occurred, it was found at the time of the operation that the median nerve was alone injured, and that a bridge of connective tissue remained between the stumps of the divided nerve. The paralysis was limited from the beginning, and final restoration of physiological function took place. The next best result occurred in a case in which all the motor nerves were involved in the injury. In this latter case, up to four months following the injury no improvement could be noted, but after six months, signs of returning function were discovered which was succeeded, after nine months, by quite well marked restoration of function of the triceps, and commencing ability to move the forearm. The study of these cases shows, as far as can be demonstrated by clinical observation, that the regeneration of the nerve fibres commences at the central end and progresses in a direction toward the periphery. This is in accord with the experience of other surgeons.